

**REMARKS**

This Application has been carefully reviewed in light of the Office Action mailed November 1, 2005 (the "Office Action"). Claims 1-9 and 11-20 are pending in the Application and stand rejected. Applicant amends Claims 1 and 13. Applicant respectfully requests reconsideration and favorable action in this case.

**Claim Rejections - 35 U.S.C. § 112**

The Examiner rejects Claims 1 and 13 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended Claims 1 and 13 in a manner that obviates this rejection and thus respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 112.

**Claim Rejections - 35 U.S.C. § 103**

**A. The proposed *Colbourne-Delavaux-Keys* combination fails to teach or suggest all elements of Applicant's Claims 1-9, 11, 13-17, 19, and 20.**

The Examiner rejects Claims 1-9, 11, 13-17, 19, and 20 under 35 U.S.C. §103(a) as unpatentable based on a proposed combination of U.S. Patent No. 6,654,564 issued to Colbourne et al. ("Colbourne"), U.S. Patent No. 5,608,562 issued to Delavaux et al. ("Delavaux"), and U.S. Patent No. 6,456,773 issued to Keys ("Keys"). Applicant respectfully traverses and submits that the proposed *Colbourne-Delavaux-Keys* combination fails to teach or suggest all elements of the claims. Consider Claim 1, as amended, which recites:

A dispersion compensation system comprising:

a dispersion compensation module (DCM) operable to receive optical input and provide optical output having a negative dispersion relative to the optical input; and

a dispersion enhancement module (DEM) adapted to be optically coupled between the DCM and an optical fiber having a positive dispersion, the DEM operably including a plurality of dispersion enhancement fibers and operable to selectively increase the positive dispersion provided by the optical fiber by a selected one of a plurality of amounts and to provide the optical input to the DCM, the optical input having a positive dispersion substantially equal to the positive dispersion of the optical fiber plus the selected one of the amounts of dispersion in the DEM.

Applicant respectfully submits that the *Colbourne*, *Delavaux*, and *Keys*, whether taken alone or in combination, fail to teach or suggest a dispersion *enhancement* module as required by Claim 1. The Examiner agrees that *Colbourne* fails to teach or suggest all aspects of the dispersion enhancement module and thus relies on the teachings of *Delavaux* and *Keys*. *Office Action*, p. 3.

*Delavaux* and *Keys* teach two alternative methods for providing a single dispersion compensation module. *Delavaux*, in general, discloses a dispersion compensation unit (element 9 in Figures 1 and 2) that includes multiple strands of dispersion compensation fiber. See, e.g., *Delavaux*, Figs. 5 and 6. *Delavaux* teaches that each of the dispersion compensation fibers has a negative dispersion relative to a system fiber. *Delavaux*, 1:37-38. The amount of negative dispersion of the dispersion compensation unit may be set by selecting or excluding dispersion compensation fibers in the unit. *Delavaux*, 3:57-60.

Similar to *Delavaux*, *Keys* discloses a technique by which a dispersion compensation module can be set to provide a desired level of dispersion compensation. However, *Keys* discloses an alternative technique. *Keys* discloses the use of individual packages of dispersion compensation fiber, with each package having a set amount of dispersion compensation fiber. One or more of the packages can be assembled within a single housing and interconnected with jumpers to supply a desired amount of dispersion compensation. *Keys*, 2:14-27.

As can be seen by an examination of *Delavaux* and *Keys*, the references fail to teach or suggest any dispersion *enhancement* module, as recited in Claim 1, for coupling between a separate dispersion compensation module and a signal fiber. *Delavaux* and *Keys* simply provide two alternate techniques for providing a dispersion compensation module that can be set to a selected amount of negative dispersion.

Applicant respectfully submits that Claim 1 is thus patentably distinct from the proposed *Colbourne-Delavaux-Keys* combination. Independent Claims 9, 13, and 16 each recite limitations that, for substantially similar reasons to those discussed above with respect to Claim 1, are patentably distinct from the proposed *Colbourne-Delavaux-Keys* combination. Claims 2-8, 11, 14, 15, 17, 19, and 20 each depend from one of independent Claims 1, 9, 13, 16. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 1-9, 11, 13-17, 19, and 20.

**B. The proposed *Colbourne-Delavaux-Keys* combination is improper.**

Applicant submits that the proposed *Colbourne-Delavaux-Keys* combination is improper, as there is no teaching, suggestion, or motivation to combine or modify the teachings of the cited references either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In fact, the references actually teach away from a combination.

*Colbourne*, the first reference identified for the proposed combination, expressly teaches away from the use of dispersion compensation fibers. Rather than using dispersion compensation fibers, *Colbourne* proposes the use of optical filters. *Colbourne*, Abstract. *Colbourne* explicitly teaches away from the use of dispersion compensation fibers, stating that “dispersion compensating fibers cannot compensate for the wavelength dependence of dispersion.” *Colbourne*, 9:15-16. Therefore, *Colbourne* teaches away from any proposed combination with a system that relies upon dispersion compensation fibers. For at least this reason, the proposed *Colbourne-Delavaux-Keys* combination is improper.

Also, *Delavaux* and *Keys* teach away from a combination with each other. These two references, as discussed above, teach alternate techniques for accomplishing a similar end result. One of skill in the art would not be motivated to pick and choose different aspects of these two alternates, but rather would be inclined to select only one of the two. For at least this additional reason, the proposed *Colbourne-Delavaux-Keys* combination is improper.

Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 1-9, 11, 13-17, 19, and 20.

**C. The proposed *Colbourne-Delavaux-Keys-Feinberg* combination fails to teach or suggest all elements of Applicant's Claims 12 and 18.**

The Examiner rejects Claims 12 and 18 under 35 U.S.C. § 103(a) as unpatentable based on the proposed combination of *Colbourne*, *Delavaux*, *Keys*, and U.S. Patent Application Publication No. 2003/0031433 issued to Feinberg (“*Feinberg*”). Claims 12 and 18 depend, respectively, from Claims 9 and 16, which are shown above to be allowable over the proposed *Colbourne-Delavaux-Keys* combination. The introduction of *Feinberg* fails to provide the elements of Claims 9 and 16 discussed above as absent from the proposed *Colbourne-Delavaux-Keys* combination. Therefore, Applicant respectfully requests reconsideration and allowance of Claims 12 and 18.

D. The proposed *Colbourne-Delavaux-Keys-Feinberg* combination is improper.

For at least the reasons discussed above with respect to the proposed *Colbourne-Delavaux-Keys* combination, the proposed proposed *Colbourne-Delavaux-Keys-Feinberg* combination is improper. The introduction of *Feinberg* fails to provide any teaching, suggestion, or motivation for the combination. Rather, the introduction of *Feinberg* further strains the already improper combination of references. Therefore, for at least this additional reason, Applicant respectfully requests reconsideration and allowance of Claims 12 and 18.

**CONCLUSION**

Applicant has made an earnest attempt to place the Application in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests full allowance of all pending claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of the Application in any manner, the undersigned Attorney for Applicant stands ready to conduct such a conference at the convenience of the Examiner.

No fee is believed to be due. However, the Commissioner is hereby authorized to charge any extra fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

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